

WHAT IS CLAIMED:

1. An integrated circuit, comprising:  
functional circuitry;  
a region devoid of the functional circuitry; and  
a transistor disposed in the region.
2. The integrated circuit of claim 1 wherein:  
the functional circuitry comprises functional-circuit blocks that are spaced  
apart from one another; and  
the devoid region comprises a region that is disposed between the  
functional-circuit blocks.
3. The integrated circuit of claim 1 wherein:  
the functional circuitry comprises a functional-circuit block having a portion  
devoid of functional-circuit elements; and  
the devoid region comprises the devoid portion of the functional-circuit block.
4. The integrated circuit of claim 1 wherein the transistor comprises an FET  
transistor.
5. The integrated circuit of claim 1 wherein the transistor is automatically  
placed in the devoid region.
6. The integrated circuit of claim 1 wherein the transistor is manually placed in  
the devoid region.
7. An integrated circuit, comprising:  
functional circuitry;  
a region devoid of the functional circuitry; and  
a buffer disposed in the region.
8. An integrated circuit, comprising:  
functional circuitry;  
a region devoid of the functional circuitry; and  
a logic circuit disposed in the region.

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1 9. The integrated circuit of claim 8 wherein the logic circuit comprises a logic  
2 gate.

1 10. The integrated circuit of claim 8 wherein the logic circuit comprises an  
2 inverter.

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1 11. An integrated circuit, comprising:  
2 first and second supply nodes;  
3 functional circuitry;  
4 a region devoid of the functional circuitry; and  
5 a transistor disposed in the region and having a pair of input-output terminals  
6 coupled to the first supply node and having a control terminal coupled  
7 to the second supply node.

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1 12. The integrated circuit of claim 11 wherein:  
2 the transistor comprises an FET transistor;  
3 the pair of input-output terminals comprises a pair of source-drain terminals;  
4 and  
5 the control terminal comprises a gate terminal.

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1 13. An integrated circuit, comprising:  
2 a conductive path;  
3 functional circuitry;  
4 a region devoid of the functional circuitry; and  
5 a transistor disposed in the region and having a pair of input-output terminals  
6 coupled to the conductive path and having a control terminal.

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1 14. The integrated circuit of claim 13, further comprising:  
2 a supply node; and  
3 wherein the control terminal is coupled to the supply node.

1 15. The integrated circuit of claim 13 wherein the control terminal is coupled  
2 to one of the input-output terminals.

1 16. The integrated circuit of claim 13 wherein the control terminal is  
2 short-circuited to one of the input-output terminals.

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1 17. An integrated circuit, comprising:  
 2 first and second regions;  
 3 functional circuitry disposed in the first and second regions;  
 4 a third region devoid of the functional circuitry;  
 5 a buffer disposed in the third region and having an input terminal and an  
 6 output terminal;  
 7 a first conductive path having a first terminal coupled to the functional circuitry  
 8 in the first region and having a second terminal coupled to the input  
 9 terminal of the buffer; and  
 10 a second conductive path having a first terminal coupled to the output terminal  
 11 of the buffer and having a second terminal coupled to the functional  
 12 circuitry in the second location.

1 18. The integrated circuit of claim 17 wherein the functional circuitry in the first  
 2 and second regions respectively comprises first and second blocks of the functional  
 3 circuitry, the first and second blocks being spaced apart from one another.

1 19. The integrated circuit of claim 17, further comprising:  
 2 a supply node; and  
 3 wherein the buffer comprises a transistor disposed in the devoid region and  
 4 having a control terminal coupled to the input terminal of the buffer, a  
 5 first terminal coupled to the output terminal of the buffer, and a second  
 6 terminal coupled to the supply node.

1 20. An integrated circuit, comprising:  
 2 first and second regions;  
 3 functional circuitry disposed in the first and second regions;  
 4 a third region devoid of the functional circuitry;  
 5 a logic circuit disposed in the third region and having an input terminal and an  
 6 output terminal;  
 7 a first conductive path having a first terminal coupled to the functional circuitry  
 8 in the first region and having a second terminal coupled to the input  
 9 terminal of the logic circuit; and

10 a second conductive path having a first terminal coupled to the output terminal  
11 of the logic circuit and having a second terminal coupled to the  
12 functional circuitry in the second location.

1 21. An integrated circuit, comprising:  
2 functional circuitry;  
3 a region devoid of the functional circuitry; and  
4 a repair transistor disposed in the region and having a three terminals, one of  
5 the terminals coupled to the functional circuitry.

1 22. The integrated circuit of claim 21 wherein two of the transistor terminals  
2 are coupled to the functional circuitry.

1 23. The integrated circuit of claim 21 wherein the three transistor terminals  
2 are coupled to the functional circuitry.

1 24. A method, comprising:  
2 identifying an integrated-circuit region that is devoid of a circuit; and  
3 placing a transistor in the devoid integrated-circuit region.

1 25. The method of claim 24 wherein identifying the devoid integrated-circuit  
2 region and placing the transistor comprise executing software that identifies and  
3 places the transistor in the devoid integrated-circuit region.

1 26. The method of claim 24 wherein placing the transistor comprises  
2 executing software that automatically places the transistor in the devoid  
3 integrated-circuit region.

1 27. The method of claim 24 wherein placing the transistor comprises  
2 executing software that allows one to manually place the transistor in the devoid  
3 integrated-circuit region.

1 28. The method of claim 24, further comprising connecting the transistor to  
2 a supply node.

1 29. The method of claim 24, further comprising:  
2 identifying a conductive path; and  
3 connecting the transistor to the path.

1           30.    The method of claim 24, further comprising:  
2   identifying a conductive path; and  
3   buffering the path with the transistor.

1           31.    The method of claim 24 wherein placing the transistor comprises placing a  
2   logic circuit in the devoid integrated-circuit region.

1           32.    A method, comprising:  
2   forming a circuit in a first region of an integrated circuit; and  
3   forming a transistor in a second region of the integrated circuit, the second region  
4   being devoid of the circuit.

1           33.    The method of claim 32, further comprising:  
2   forming first and second supply nodes;  
3   coupling a first terminal of the transistor to the first supply node; and  
4   coupling second and third terminals of the transistor to the second supply node.

1           34.    The method of claim 32, further comprising:  
2   forming a conductive path; and  
3   coupling first, second, and third terminals of the transistor to the conductive path.

1           35.    The method of claim 32, further comprising:  
2   forming a supply node;  
3   forming a conductive path;  
4   coupling first and second terminals of the transistor to the conductive path; and  
5   coupling a third terminal of the transistor to the supply node.

1           36.    The method of claim 32, further comprising:  
2   forming first and second segments of a conductive path;  
3   coupling an input terminal of the transistor to the first segment; and  
4   coupling an output terminal of the transistor to the second segment.

1           37.    The method of claim 32, further comprising:  
2   forming first and second segments of a conductive path that is coupled to the circuit;  
3   coupling an input terminal of the transistor to the first segment; and  
4   coupling an output terminal of the transistor to the second segment.

1           38.    The method of claim 32, further comprising coupling the transistor to  
2 the circuit to repair a defect in the circuit.

1           39.    The method of claim 32, further comprising:  
2 forming a conductive path;  
3 dividing the conductive path into first and second uncoupled segments; and  
4 coupling the first segment to the second segment with the transistor.

1           40.    A method, comprising;  
2 dividing an array into locations, the array representing an integrated-circuit;  
3 identifying the locations in the array unoccupied by circuit blocks; and  
4 placing transistors in the unoccupied locations.

1           41.    The method of claim 40 wherein placing transistors comprises placing  
2 blocks of transistors in the unoccupied locations.

1           42.    A method of integrating additional transistors into an integrated circuit,  
2 the method comprising:  
3 calculating the dimensions of an array to store validity data;  
4 initializing the array as valid;  
5 reading block information including location and dimensions;  
6 calculating the locations in the validity array corresponding to the block location and  
7 dimensions;  
8 marking the locations in the validity array as invalid;  
9 checking for more blocks;  
10 if more blocks are found, looping back to the step of reading block information;  
11 if no more blocks are found, continuing:  
12 for each location in the validity array, if valid, then place a transistor array block;  
13 else, continue to next location.

1           43.    The method of claim 42, further comprising allowing a user to invalidate  
2 locations within the validity array.